

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



Week of 9 January - 15 January, 2005

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International

Internet

- **Research firm International Data Corp (IDC) said IT investments in the Asia-Pacific region, excluding Japan, would remain robust, and are expected to repeat last year's 10 percent market growth.** The region's high-growth technology segments would include IT planning and implementation services, training and education, and enterprise application software. Total IT spending in the region this year is forecast to reach US\$97 billion, driven by markets in India and China. The two countries will account for about 42 percent of the total IT market. IDC estimated technology-related investments in China would grow about 15 percent to US\$32.1 billion from US\$28 billion last year. In India, IT spending would climb about 21 percent to US\$8.4 billion from US\$7 billion. Hong Kong received, too, a healthy forecast: IDC said IT spending was expected to increase 7 percent this year to US\$3.2 billion, an improvement on last year's US\$3.1 billion. Nokia predicted the mobile device market would grow 10 percent in volume from last year's estimated 630 million units. That demand would be realized through the steady adoption of next-generation services that take advantage of the new wave of easy-to-use, feature-rich and Internet-linked mobile phones with integrated cameras, push-to-talk capabilities and video-capable screens. Industry consolidation is expected to continue this year following the Lenovo-IBM, Oracle-PeopleSoft and Symantec-Veritas Software mergers. In the enterprise market, key drivers will be around the need to take a more balanced approach to information security and availability, regulatory compliance, and building and managing a resilient infrastructure.
- **According to some investment banks, Asian technology stocks are in a good position to be on the upside this year.** Technology was the only Asian equity sector that generated negative returns last year and currently trades at record low valuations. According to Merrill's monthly fund manager survey, it also remains one of the least-liked areas. JP Morgan is also positive on technology in Asia, but not because it expects a recovery in export firms any time soon. Other positive signals include the rising consumer confidence, expectations of positive earnings revisions and dividend yields that could go above 4 percent this year. Within semiconductors, Merrill prefers fab-less over foundries, in particular Taiwan's NovaTek and Hong Kong's Solomon Systech. In the hardware sector, which it argues has the second-best operating characteristics after IT services and software – it likes HTC Corp, Hon Hai Precision Industry and Taiwan Green Point Enterprise in Taiwan, Kingboard Chemical Holdings and BYD in Hong Kong/China, and MFS Technology in Singapore. Thin-film transistor liquid-crystal display companies such as Sharp, LG Philips Display and AU Optronics and related supply chain companies should also start to benefit later in the year when the supply and demand situation is expected to become more balanced. Goldman Sachs also sees a better performance in the second half as expectations for stronger earnings growth in 2006 start to take hold.

Telecommunications

- **A recovery in the telecommunications sector, led by the build up of 3G cellular infrastructure worldwide, is creating fresh opportunities for suppliers of network test and measurement equipment.** Industry experts said the demand for network test and measurement devices would continue to expand with the industry's evolution to next-generation communications systems such as data-intensive cellular network services. Research firm International Data Corp (IDC) recently forecast the global test and measurement gear market to be worth US\$6.7 billion by 2008, representing an 11

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percent annual growth rate from 2003. Telecommunications market researcher Dell'Oro group forecast the world's total mobility infrastructure market to be driven largely by 3G W-CDMA network equipment from 2006, when W-CDMA infrastructure and base station sales were set to surpass those of second-generation GSM-based system. New York-based analyst firm Visant Strategies expected 2.4 million base stations to be deployed worldwide to serve more than 2.1 billion cellular subscribers. But that as rollout progresses, network operators will be under growing pressure to ensure they can handle the wide assortment of voice, data and multimedia traffic expected over the next few years.

Japan

Internet

- **Japan Internet firm Softbank has offered about 200 billion yen (about US\$1.9 billion) to buy Tu-Ka mobile phone companies from Japan's second-ranked mobile phone carrier, KDDI Corp.** The deal, if finalized, would enable Softbank to enter the wireless phone service and become a comprehensive communications services provider. The offer targets Tu-Ka Cellular Tokyo Inc., Tu-Ka Cellular Tokai Inc. and Tu-Kai Cellular Kansai, Inc., all more than 90 percent-owned by KDDI. The three companies specialize in low-cost second-generation mobile services and have a combined market share of 4.2 percent, with roughly 3.6 million subscribers. The company has also asked the government for access to the high-speed 800-megahertz bandwidth used by 3G mobile services. If granted by the government, Softbank will be fifth in Japan's mobile phone industry.
- **Japan's business-to-consumer electronic market is expected to double in 5 years to 5.5 trillion yen (US\$54 billion).** This was according to Nomura Research Institute. The domestic Internet auction market is also projected to double from 1 trillion yen (US\$9.7 billion) to 2 trillion yen (US\$19.5 billion) in fiscal 2009 ending in March 2010.

Software

- **Kyushu Electronics Systems Inc. (KES), a measuring and control equipment maker, has developed software that allows personal digital assistants to be used to transmit moving images via the Internet on a real-time basis.** As images can be sent in a display size of 640 x 480 dots, 16 times the size available for videophone systems using third-generation cellular phones, the company projects the system will be useful for TV news reporters covering reporters covering stories, and inspectors patrolling industrial plants and railway stations to detect abnormalities, for instance. Users will install the software into a camera-mounted PDA from Hewlett-Packard Co. and use the system after gaining a license number from KES. The company will release the software on CD-Rom from late January, and make it downloadable through its web site from mid-February, for 10,000 yen (US\$98).

Telecommunications

- **KDDI Corp.'s au wireless services secured the most new subscribers on a net basis in 2004, besting services offered by NTT DoCoMo Inc.** In figures released by the Telecommunications Carriers Association, au enjoyed a net increase of 2.7 million subscribers. The figure is calculated by subtracting the number of subscribers who cancelled their service from the number of new subscribers registered during the year. DoCoMo services racked up a net increase of 2.1 million subscribers in 2004. Wireless services from Vodafone KK ranked third with a net increase of 437,000 subscribers, followed by the Tu-Ka group with a net decrease of 70,400. But Tu-Ka netted 15,000 new subscribers

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in December alone, besting Vodafone to rank third for the month on the popularity of a newly released with simple features.

Hardware

- **Hitachi Maxell Ltd. and the U.S. firm InPhase Technologies have developed a new data-writing method for holographic data storage.** Hitachi Maxell has been collaborating with InPhase since 2002, and the latest fruit of that undertaking is a prototype system that can write 200 gigabytes of data to a 5-inch platter. InPhase produced the recording device and Hitachi Maxell made the disc. In holographic data storage, the interference patterns from a pair of lasers are used to write data bits in three-dimensional space in the recording medium. Hitachi Maxell and InPhase plan to ship samples of their system from the latter half of this year and market a version for commercial applications as early as 2006.
- **Matsushita Electric Industrial Co. and Olympus Corp. said they would jointly develop digital cameras.** Matsushita, the maker of Panasonic-brand products, and Olympus said in a statement that they will team up in the production of single-lens reflex cameras. The two companies said they would draw up further details on the tie at a later date.
- **Sharp said it would invest US\$2 billion to increase output of liquid crystal display (LCD) panels for digital televisions, mobile phones and game consoles.** Sharp said it would spend 150 billion yen (US\$1.4 billion) to launch in October next year its new Kameyama complex from an initial 15,000 LCD panels a month to 30,000 in 2007. Sharp also plans to increase capacity at the existing Kameyama No. 1 plant to 45,000 panels a month by April this year, from the current 27,000 panels. Sharp aims to boost sales of LCD televisions to 4.5 million in the fiscal year to March next year, and to 7 million for the following year. Sharp aims to increase LCD business revenue to 830 billion yen (US\$8.1 billion) in the year to March next year, from 730 billion yen (US\$7.1 billion) projected for the year to March this year.

Media, Entertainment and Gaming

- **Toshiba Corp., along with other researchers from Tokyo University, have developed a technology that enables cable television providers to determine whether their signals are being stolen by people who are not subscribers.** Cable TV operators supply genuine subscribers with dedicated services to unscramble picture signals. But an increasing number of people are watching cable TV without paying monthly fees, using descramblers, which typically unscramble signals by fraudulently obtaining subscriber ID numbers. To pinpoint the IDs that unauthorized viewer's use, broadcasters transmit an inspection signal that incorporates a key cryptogram contained in the descramblers they provide to subscribers. The technology can also be applied to unauthorized access to music or movies distributed over the Internet. At least 10,000 devices to enable free access to cable TV programming are in use nationwide, costing the CATV industry tens of millions of yen in lost revenue each month.

Korea

Internet

- **NHN, the operator of South Korea's leading Internet search engine Naver, has launched a new desk-top search tool designed to crush competition from the United States rivals.** The new

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service allows personal-computer users to find files on their hard drives as well as the web using free software launched from an icon on the task bar of Microsoft's Windows operating system. Naver controls nearly 60 percent of South Korea's search traffic by keeping global search engines such as Google and Yahoo at bay. The global search engine market is dominated by Google and Yahoo but NHN said new tools developed by the key U.S. players would not threaten NHN's domestic leadership. The Internet business sector now relies more on search services to sustain growth and generate advertising revenue. NHN's total revenue jumped from 166 billion won (US\$159.1 million) in 2003 to more than 200 billion won (US\$191.7 million) last year, helped by its user-created content with Naver's question-and-answer type search engine.

- **Daum Communications Corp. has received notification from the Korea Stock Exchange that it is delaying preliminary approval for the country's No. 2 Internet portal to move its securities to the main bourse.** The Korea Stock Exchange said it put off the preliminary approval because of uncertainty in Daum's earnings after the Lycos purchase. In November last year, shareholders of Daum approved the plan to move its shares to the main bourse from the over-the-counter KOSDAQ market, as part of its efforts to draw bigger institutional investors. Last year, NCSOFT Corp and other major companies in the KOSDAQ market, which mainly has venture start-ups, moved to the main exchange.

Mobile/Wireless

- **Samsung Electronics said it had developed the world's first mobile phone that can detect motion.** The SCH-S310 phone allowed users to dial by waving the phone to write numbers in the air instead of pressing a keypad. Users could also delete unsolicited commercial text messages by shaking the phone up and down. The new device used a sensor that could interpret simple human gestures. Samsung said the gadget, described as the most innovative of its latest product offerings, opened up a way for people to interact with their phones more naturally.
- **South Korea launched trial operations of the world's first satellite-based television service for mobile-phone users.** The system, using technology developed by Japan's Toshiba Corp, allows mobile phone users in cars, trains or on street corners to watch high-definition digital TV programming by satellite. After a four-month trial, TU Media Corp, 30 percent owned by South Korea's top mobile carrier SK Telecom, said it would begin commercial in early May. The model is priced at 850,000 won (US\$814). South Korea has emerged as a global leader in digital technology, with the information communications sector representing crucial part of the economy. The country leads the world in broadband Internet and mobile phone penetration. There are 36.6 million mobile phone subscribers in South Korea, accounting for 76 percent of the population. However, the country's 19 trillion won (US\$18.2 billion) wireless telecoms market approached saturation last year, prompting firms to turn their eyes to new services such as broadband-based TV and wireless Internet services.

Information Technology

- **Korea's exports of information and communication technology products reached US\$74.3 billion in 2004, the Ministry of Information and Communication said.** The 29 percent year-on-year increase is said to be driven by the increasing sales of mobile phones and semiconductors. However, industry watchers are forecasting the growth rate to slow in 2005. Watchers attribute the slowing down to the increasing competition from Taiwan and Japan, which would result in oversupply of semiconductors and liquid-crystal display products. After reaching a monthly record high of US\$6.8 billion in November, information-technology exports dropped to US\$5.3 billion in December. The strengthening won, which makes Korean products more expensive, had prompted buyers to move up

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deliveries scheduled for December. China continued to be Korea's largest info-tech market, with shipments totaling US\$19.5 billion in 2004.

Hardware

- **Samsung Electronics, the world's No. 2 semiconductor maker, announced its net income for last year exceeded 10.7 trillion won (US\$10.3 billion).** The result makes it the first company in South Korea to achieve the landmark figure. Compared to the third quarter of last year, net profit slid 5.6 percent and sales fell 3.1 percent. For all of 2004, Samsung's net income jumped 81 percent to a record 10.7 trillion won (US\$10.2 billion). Full-year sales rose 32.2 percent to 57.6 trillion won (US\$55.2 billion). As for 2005, Samsung said it plans to seek a 2 percent increase in sales as market conditions are expected to worsen. This year, Samsung plans to introduce ten 3G mobile phone models that allow faster Internet access and other multimedia functions.

China

Internet

- **Linktone Ltd., a leading provider of wireless value-added services (WVAS) to mobile phone users, announced the signing of a definitive agreement to acquire Beijing Cosmos Digital Technology Co. Ltd. (Cosmos Digital).** Cosmos Digital is a leading privately held provider of next-generation Wireless Application Protocol (WAP) services to China Unicom, one of the two major mobile operators in China. Its monthly revenues grew an average of 18 percent per month sequentially during the second half of 2004. Cosmos Digital offers 24 types of services on China Unicom's WAP network menu, including a broad portfolio of ring tone and picture products, chat applications, infotainment services, and Korea-licensed games on WAP and BREW, the principal wireless data technology platform of China Unicom. With this strategic acquisition, Linktone expects to strengthen its overall WAP service portfolio and development capabilities and increase its share of the rapidly growing 2.5G WVAS market. The move is aimed to strengthen its relationship with China Unicom. Following the close of the acquisition, Linktone plans to integrate Cosmos Digital's operations as a wholly owned subsidiary. The agreement calls for Linktone's acquisition of 100 percent of the outstanding shares of Cosmos Digital in cash, which will be paid from the Linktone's existing cash reserves.
- **Prospective newcomers such as Hurray! Holding, which filed its listing papers, unlike the mainland Internet media companies that have been described as favorites of the NASDAQ stock market, are more likely to find investor much tougher than their predecessors.** Hurray! is seeking up to US\$91.8 million from an initial public offering at a time when the stock prices of several NASDAQ-listed rivals are struggling to recover from last year's declines. Shares of Tom Online, Linktone, KongZhong, Sohu.com and Sina Corp plunged to 52-week lows in August last year on reports of crackdown on short messaging services and Internet and wireless content deemed illicit by Beijing authorities. Analyst said yesterday fears of further interference by the mainland government could dampen enthusiasm for future listings in the Internet and mobile value-added services sector, with even big players like Kongzhong and Linktone still trading below their listed price. However, DBS Vickers said "policy issues" such as the government crackdown could have less influence on potential investors than whether the company offered value for money. Hurray! recorded net income of US\$4.5

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million from revenue of US\$23.1 million in 2003. This rose to net profits of US\$12 million from US\$39.4 million in turnover for the nine months to September last year.

- **Sichuan Changhong Electric said it had signed an agreement with China Telecom to develop a variety of Internet-linked electronics equipment.** The deal between the country's No. 3 television-set maker and the largest fixed-line operator would focus on the production of video telephones and Internet protocol TVs (IPTVs). The agreement also includes the development of 3C products, communication and consumer electronic goods, while the groups would combine sales networks. News of the deal comes after Sichuan Changhong sued its U.S. distributor APEX Digital last month, claiming the California-based firm had defaulted on bills worth US\$467.5 million plus interest. Facing hundreds of millions in losses for last year, Sichuan Changhong has since received more than US\$1 billion in loans and credit from the country's big four state banks to help cover operating costs. The company is in the middle of a battle also with rivals TCL and Konka to boost earnings through the development of high-end products.

Media, Entertainment and Gaming

- **Kingsoft hopes its latest online game will be a blockbuster in the nation's booming online gaming market.** The company, which is China's leading software maker, expects the game Fengshengbang, to earn the firm at least 400 million yuan (US\$48.1 million) in revenues even as it expects to spend 20 million yuan (US\$2.4 million) in January to market the game. Fengshengbang is based on a classic Chinese novel and is becoming increasingly popular among Chinese online gamers, especially since last month's launch of the game's beta version. The company said the peak number of its online players is coming close to 100,000, and is expected to exceed 200,000 in the coming. Insiders say domestic online game developers usually spend, on average, 5 million yuan (US\$602,000) throughout the year. The huge advertising budget of Kingsoft underscores the firm's desire to grab a bigger share of China's online game market. A boom in the online game market has sparked the runaway success of Shanda Interactive Entertainment Ltd., with its online game subscribers reaching a record 1.7 million in the third quarter, compared with 1.6 million in the April-June period. Given the popularity of broadband Internet access in residential areas, an increasing number of players want to enjoy their games at home, rather than staying at Internet bars. This presents an even bigger potential mass market. Beijing-based research firm Analysys International previously forecast China's online game market would be worth 8.6 billion yuan (US\$1 billion) this year. That would be more than double the size of the market last year, which was worth 3.6 billion yuan (US\$433 million).

Mobile/Wireless

- **China is poised to liberalize the mobile phone manufacturing industry by doing away with its six-year old licensing system to allow any company to produce handsets.** The National Development and Reform Commission is working with the Ministry of Information Industry to draft new guidelines. In the near future, domestic and foreign firms that want to make mobile phones will be required only to go through ministry and commission vetting procedures. Gartner Asia Pacific said that with 3G licensing underway, it was critical for the mainland government to open the door for the mobile-phone manufacturing industry. The ministry introduced licensing for the manufacture of mobile phones in 1998 to help nurture the industry. In all, 37 licenses were granted to 24 vendors to produce GSM and CDMA phones in China before the government stopped issuing them two and a half years ago. The decision placed between 10 and 20 companies out of business. These included the country's largest telecommunications equipment supplier Huawei Technologies. Huawei says it has

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been experiencing slower growth in domestic sales partly because it does not have a license to produce mobile phones. Last year, Huawei logged in a 56 percent growth in sales revenue to US\$5 billion, but most of its came from overseas markets. The firm saw international business more than double to US\$2.2 billion.

- **The number of mobile phone subscribers in China topped 334 million last year, 65 million more than in 2003, the Ministry of Information Industry said.** The number of fixed-line subscribers reached 316 million last year, up 53 million from 2003. China's mobile subscriber numbers were expected to grow to 402 million this year, the agency report said. Such numbers would mean that nearly one out of every three Chinese citizens would have a mobile phone. Revenue in the telecommunication sector reached 520.5 billion yuan (US\$62.8 billion) last year, up 1.1 percent from 515 billion yuan (US\$62.2 billion) in 2003. That accounted for more than 90 percent of income from the telecoms and postal services.

Semiconductors

- **Semiconductor Manufacturing International Corp (SMIC) assured investors not to worry about the impending global downturn as it looks to a huge and growing mainland market that would offer the company a protection from the ups and downs of global semiconductors market.** U.S.-based industry analyst IC Insights seem to support this view, with the figures indicating the China chip market is expected to surge 11 percent this year to US\$34.3 billion. Last month, SMIC revised its earnings forecasts, citing weakness in global conditions and lower average selling prices for commodity memory chips. In November, the Ministry of Commerce offered full tax rebates for chips leaving the mainland. Exporters will get the full 17 percent tax refunded, instead of the 13 percent previously. Other reports though say that SMIC has reduced its production capacity to 24 percent, reducing capital expenditure due to slow demand.

Hardware

- **China's BOE Technology Group Co. has become the world's largest maker of liquid crystal display panels, overtaking industry giant Samsung Electronics Co. in the final weeks of 2004.** But analysts say BOE Technology reached the top through a series of mergers and acquisitions, which the company may find difficult to form into a profitable enterprise. Though world demand for large LCD displays is increasing, industry observers forecast LCD prices will either stabilize or decrease in the next few quarters as producers flood the market with a broad and more advanced range of displays. While BOE is establishing fifth-generation LCD making operations, its foreign rivals, such as Samsung and LG Electronics Inc. are already planning sixth- and seventh-generation production designs. Its competitors' plans are putting additional pressure on BOE to reduce prices and shrink margins on its low-end products while integrating its various acquisitions. BOE posted a net loss of 46.2 million yuan (US\$5.5 million) for the three months ended Sept. 30 2004. Now that BOE has become the No. 1, some analysts say the leadership in Beijing might be prepared to provide some financial support for the company due to their drive to create world-class companies in key sector. But to acquire the trust and funding of foreign investors, analysts say, BOE needs to adopt better disclosure.

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Taiwan

Internet

- **Internet giant Yahoo! Kimo (Y!K) said it was aiming for a 50 percent increase in its e-commerce revenues in 2005 after its claim that it trounced the competition in the online auctions arena last year.** The group said that it was the first provider to announce an auctions listing charge to reduce redundant products, and to establish a comprehensive online payment service and a buyer and seller protection program to ensure “a more dynamic online auctions environment”. Citing a report issued by the semi-official Market Intelligence Center, the Internet portal said its e-commerce’s total gross online sales volume reached NT\$16.5 billion (US\$517.3 million) last year. This accounts for 60 percent of Taiwan’s e-commerce market. This sum included the Yahoo! Kimo Auctions, Shopping 1 and Shopping 2 services. The Shopping 1 portal houses virtual stores while Shopping 2 features exclusive products and “warm-up” promotions. Both Y!K Shopping 1 and 2 saw a huge growth in business. The company noted that several Shopping 1 storeowners had used Y!K Auctions to expand their sales channels, and Auctions sellers also expanded their reach by using the Shopping 1 portal. According to a Y!K study, traditional industries such as food manufacturers and toy makers were also banking on the Internet to grow their businesses.

Mobile/Wireless

- **Mobile devices vendor Mio Technology and Korea’s LG International, the general trading arm of electronics giant LG Group, entered into a partnership agreement.** Under the agreement, LGI would serve as Mio’s exclusive sales agent in the country. Mio, a subsidiary of Taiwan’s MiTAC Group, said it was banking on LGI’s extensive sales and marketing network to make the Taiwanese brand popular. Mio said the partnership with LGI represents a very strong endorsement of their products and is highly significant for the development of the GPS (global positioning system) market in Asia. The company further says that this partnership will serve as a driver for Mio sales throughout Asia and, by partnering with LGI, be able to make MioGPS the focus of a popular trend in Korea this year. LGI was hoping to sell at least 10,000 units of MioGPS products in Korea per month.

Hong Kong

Media, Entertainment and Gaming

- **Superscape Group plc, a leading mobile games publisher, announced that it has signed a revenue-sharing mobile games distribution agreement with Hong Kong-based SmarTone.** Under the terms of the agreement, SmarTone will distribute both Superscape’s 2D and 3D games titles to their consumers. Smartone has also secured exclusive distribution rights for the recently launched E680 mobile phone from Motorola, which includes a number of Superscape’s 3D titles. Since its launch in October, the E680 has proved to be an instant hit. Superscape has previously announced distribution agreements with twelve of the company’s targeted top fifteen operators, together with more than sixty regional operators. SmarTone is Hong Kong’s leading mobile operator in multimedia services.

Mobile/Wireless

- **The failure of the high- bandwidth 3G phones to attract a large number of users has forced Hong Kong inventors of the world’s first virtual girlfriend on mobile phones to put her on hold**

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until April. Wireless applications company Artificial Life said still and animated sequences would be used in 2G phones, instead of the high-quality 3D animation of the full 3G version. Only Malaysian telecom operator Maxis Communications, which has signed up with the Hong Kong-based company, has agreed to launch the virtual girlfriend, named Vivienne, on her original 3G platform, which features high-resolution 3D animation sequences, real time conversations based on text messaging and an evolving narrative for the virtual affair. Currently, three carriers offer 3G services – SmarTone, CSL and Hutchison Telecommunications. Analysts estimate fewer than 5 percent of the more than 8 million mobile phone subscribers in Hong Kong are on 3G phones. Multimedia and wireless network specialist predicted the take-up rate of 3G services would pick up soon.

- **Hong Kong's 3G mobile network operators can expect no relief from the industry regulator on their spectrum usage charges, which the government holds as non-negotiable financial commitments.** The hard stand was made by the Office of the Telecommunications Authority (OFTA) in response to a proposal Hutchison Telecommunications filed with the Legislative Council. Hutchison, which owns 3G licenses in Hong Kong and nine other markets, said reducing the spectrum utilization fee for local 3G operators would create a level playing field with 2G operators, as the government moved to adopt a spectrum usage fee structure with those renewing their 2G licenses. According to OFTA, the level of spectrum utilization fee under the 3G licenses has been incorporated into the license conditions, which had been accepted by the licensees during the bidding exercise in 2001. The industry regulator said that it is not appropriate to modify the level of the 3G fees anymore.

Singapore/Malaysia/Philippines/Indonesia

Internet

- **GlobalRoam, a Singapore-based provider of integrated Internet and communications roaming services, has selected Open Access technology from NMS Communications as the underlying architecture on which it would build its new worldwide roaming service for international travelers.** GlobalRoam provides an alternative to the high fees traditionally associated with international communications roaming services. GlobalRoam offers its users hassle-free and convenient roaming with an integrated suite of communications services. With GlobalRoam, travelers now have access to the Internet, fixed line international direct dialing (IDD), mobile roaming services, mobile conferencing, and even web calling services under one integrated account, no matter where they go. NMS' Open Access platform facilitates voice, fax and data processing for the GlobalRoam proprietary roaming engine and the computer database system in GlobalRoam's overall management infrastructure, which would enable the seamless Internet and Communications integration for which GlobalRoam is recognized. The company targets business travelers from any country who require constant contact with associates while abroad.

Mobile/Wireless

- **M1, Singapore's innovative mobile and IDD service provider, has selected and deployed the Kenan FX framework as its exclusive billing and customer care platform.** CSG's Kenan FX framework supports all of M1's mobile subscribers across Singapore and positions the operator for its upcoming launch of convergent 3G mobile services. With the upgrade to Kenan FX, M1, can leverage a single billing and customer care platform to support the needs of its customers purchasing multiple mobile services, including flexible and fast rollout of bundled service offerings. The Kenan FX upgrade

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also provide impressive efficiencies in M1's operational performance by streamlining its use of both software and hardware applications. M1 holds a leading position in the Singapore telecommunications market with more than 30 percent share and a subscriber base of more than 1 million.

Media, Entertainment and Gaming

- **Singapore-based Creative Technology sold more than two million MP3 digital music players in the Christmas shopping quarter, boosting its profit outlook for the period.** Creative is spending heavily on marketing to grab a bigger share of a market dominated by the Apple iPod. The company said it expected 45 percent revenue growth in the December quarter from a year ago. Creative is expecting sales of US\$360 million in the October to December period, up from US\$250 million in the same fiscal second quarter in 2003. The company sells the MuVo and Zen Micro line of MP3 players, which compete with the Apple iPod and iPod mini along with a growing roster of other competitors in the digital entertainment gadgets market. Creative started out as a maker of computer soundcards, which turned personal computers into stereos. It is now focused on MP3 players, which enable consumers to record compressed versions of digital music into pocket-sized devices.

United States/Canada

Internet

- **Yahoo is offering to help consumers and office workers sift through the digital hodgepodge stored in their computers with a free software product to be introduced.** The product has been developed a part of a licensing agreement with a start-up called X1 Technologies. Yahoo is counting on the software to help it catch up in the race to do a better job of quickly finding the wealth of information and entertainment increasingly stored on computer hard drives. Google and Microsoft introduced their own free tools for scouring the computer desktop late last year. Several other smaller companies, including X1, are also offering products designed simplify the search for digital information offline as it has become online. Yahoo claims its solution – which will run only on the Windows operating systems – as the most comprehensive and nimble of the current crop on the market. The company says its software will comb through more than 200 different file types while providing users with more privacy controls to prevent unauthorized access to sensitive information stored on computers.

Mobile/Wireless

- **Verizon Wireless will sell phones from LG Electronics Inc., Samsung Electronics Co. and UTStarcom to entice customers to use handsets to play games and watch videos from providers such as VH1.** The handsets let users download music, news, weather, sports and video programs designed for mobile phones by Viacom Inc.'s television channels VH1 and Comedy Central and News Corp.' 20th Century Fox. The phones and programming fit with a plan by Verizon Wireless to increase sales of advanced mobile services, which are growing faster than voice calling. Eager to extend lead over bigger carrier Cingular Wireless, Verizon Wireless said in December that it would spend US\$1 billion through the end of 2005 to extend the 3G network across the country. By year's end, the service will be available to 150 million people in the United States, double the current number.

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Semiconductors

- **Intel Corp reported its highest ever-quarterly revenue and boosted its budget for factory and manufacturing investments by more than US\$1 billion as profits exceeded Wall Street expectations.** Earnings in the fourth quarter to December 25 fell to US\$2.1 billion compared with a year-earlier profit of US\$2.2 billion, as margins eroded in part due to heightened competition. Sales rose to US\$9.6 billion from a previous record of US\$8.7 billion. Intel boosted its annual budget for spending on factories and chip-making equipment to about US\$5.3 billion from US\$3.8 billion last year. Intel said it expected margins to decline further in the first quarter this year to about 55 percent, and targeted 58 percent for the year. While competition from AMD has weighed on those margins, gains in manufacturing productivity this year could push those numbers higher.

Information Technology

- **Silicon Graphics Inc (SGI) has completed the installation of supercomputing and storage systems in China for government-backed research designed to link liver-specific proteins to diseases such as hepatitis and liver cancer.** The U.S. firm set up its Linux-based Altix 3000 supercomputer and a 40 terabyte storage networking infrastructure for the Beijing-based China Human Proteome Organization. The organization is conducting the three-year study. Detailed analyses on samples are expected to generate up to 20 terabytes of data a year.

Hardware

- **Apple's profits surged fourfold in its financial first quarter to December 25, to US\$295 million, boosted by strong sales of its iPod digital music player.** The result was a 368 percent increase over its year-earlier net earnings, for the same period ending December 2003, with a figure of US\$63 million. Apple beat most analysts' expectations with its US\$3.4 billion in revenue – a 74 percent increase compared with the September-December 2003 period. The company noted sales to date of more than 10 million iPods. Apple expects about US\$2.9 billion in sales in the present quarter.

Europe

Internet

- **Nokia said it would cut costs in its Multimedia Business Group by shedding workers in the division's research and development department.** In November, the Finnish giant said it hoped to reduce its overall research and development costs between 9 and 10 percent of net sales by next year, from 12.8 percent or 3.7 billion euros in 2003, to improve its profitability. The job cuts would take mainly in Germany and Finland, with a maximum of 250 taking place in its home country. Nokia, due to publish its fourth quarter and full-year results for last year, gave no other figures.
- **Verio Europe, a subsidiary of NTT Communications, announced an agreement with the Subaru World Rally Team to host the team's extensive web site.** Under the agreement, Verio Europe will provide critical Internet infrastructure, managed security services and high performance online solutions for the Subaru World Rally Team website. The site has a subscribed fan base of 50,000 members and is one of the most popular sites in the championship. It contains a variety of interactive material including live event results, factory tours, driver and team information, an online merchandise store and an image library of over 3,000 high-resolution images. Verio Europe is rapidly expanding its capabilities in the sports industry. High profile wins such as UEFA, The FA and International Tennis

IRG Technology, Media and Telecommunications and Life Sciences Weekly Market Review



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Federation (ITF) have firmly established Verio Europe as the technology partner of choice for sport organizations.

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